

MAN1575C32

GNSS Chip Antenna

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GNSS Chip Antenna

For L1/B1/E1/G1

MAN1575C32

3.2x1.6x0.6 mm

All Use For RF & Microwave

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Applications

1. Satellite communication
2. Navigation and position
3. For L1, B1, E1, G1

Features

1. Compact size
2. Omni-directional radiation
3. Tape & reel automatic mounting
4. RoHS compliance (Pb-Free)

Description

The MAN1575C32 is designed for GNSS Antenna. We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

Electrical Specification

Table 1. MAN1575C32 Electrical Specification

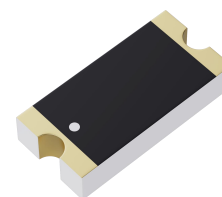
Item	Min.	Type	Max.	Unit
Frequency Range	1559		1605	MHz
VSWR	1.3		3.5	
Efficiency	25		42	%
Peak Gain		2.62		dBi
Polarization		Linear		
Nominal Impedance		50		Ω

- Ta: +25 $\pm$ 5°C

Mechanical Specification

Table 2. MAN1575C32 Mechanical Specification

Item	Min.	Type	Max.	Unit
Antenna Size		3.2*1.6* 0.6		Mm
Storage Temperature	-40		+125	°C
Operating temperature	-40		+125	°C



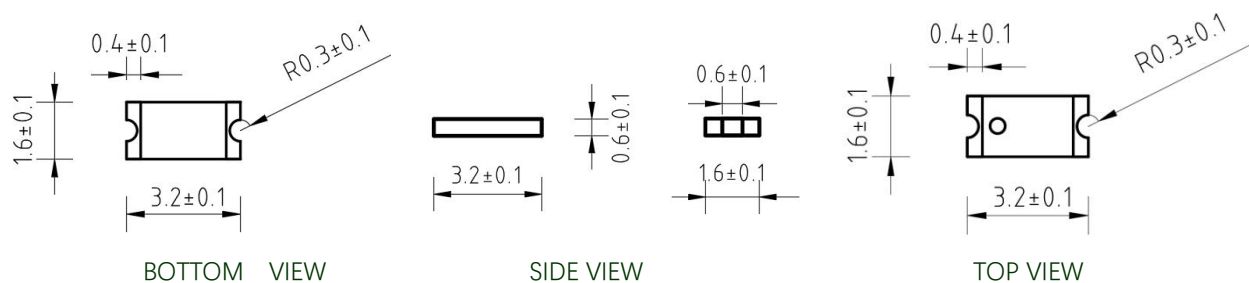
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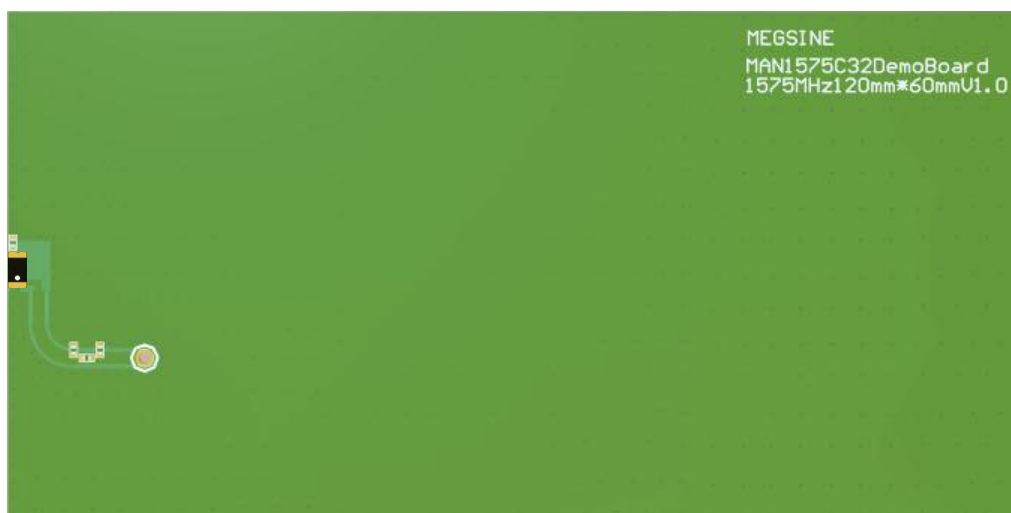
Outline Drawing

Figure 1. MAN1575C32 View (Unit: mm)



Recommend PCB Layout

Figure 2. MAN1575C32 PCB Layout (Unit: mm) TOP VIEW



Size 120*60mm

Figure 3. MAN1575C32 PCB Layout (Unit: mm) BOTTOM VIEW



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Figure 4. MAN1575C32 PCB Antenna Layout (Unit: mm)

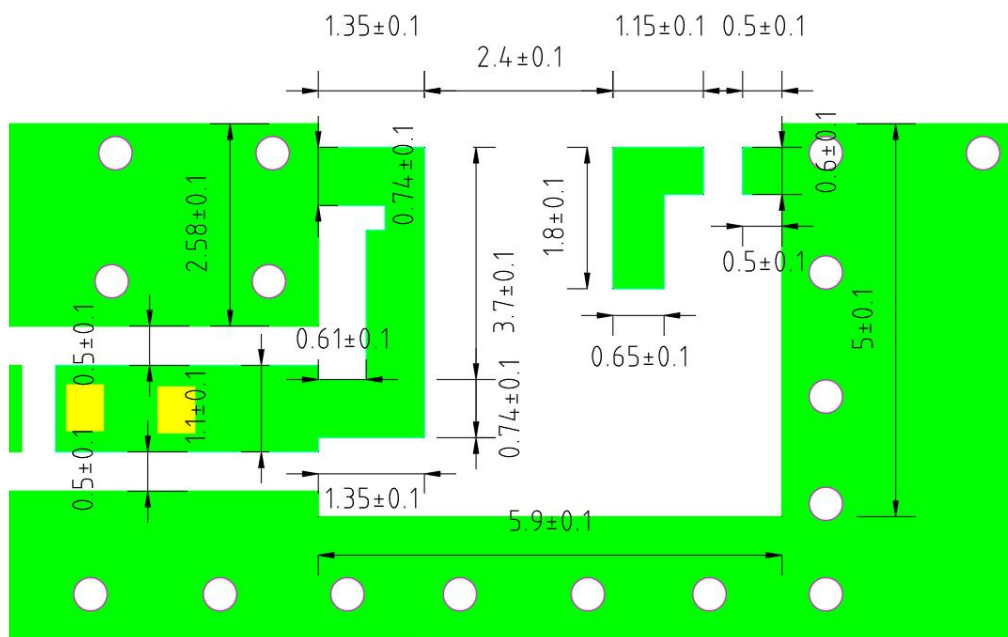


Figure 5. MAN1575C32 Matching Circuit (Unit: mm)

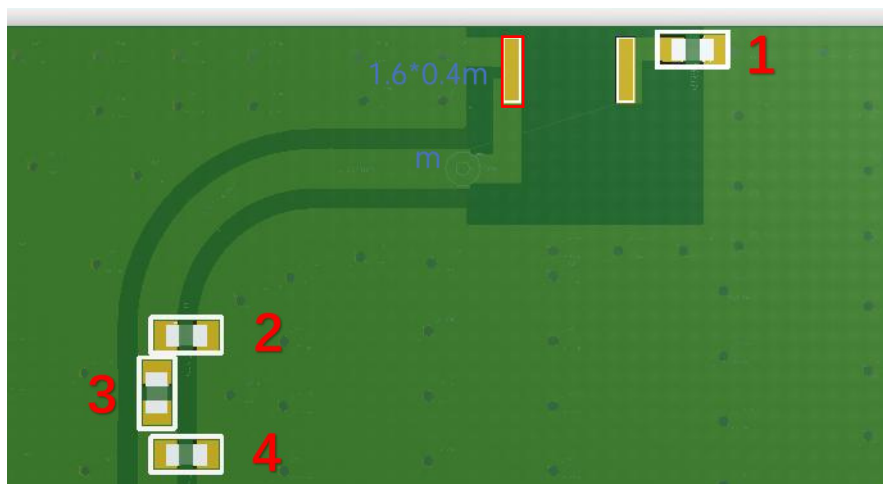


Table 3. MAN1575C32 Matching

Location	Description	Vendor
1	1nH	MURATA
2	N/C	N/C
3	0Ω	MURATA
4	N/C	N/C

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Typical Performance

Figure 6. MAN1575C32 VSWR

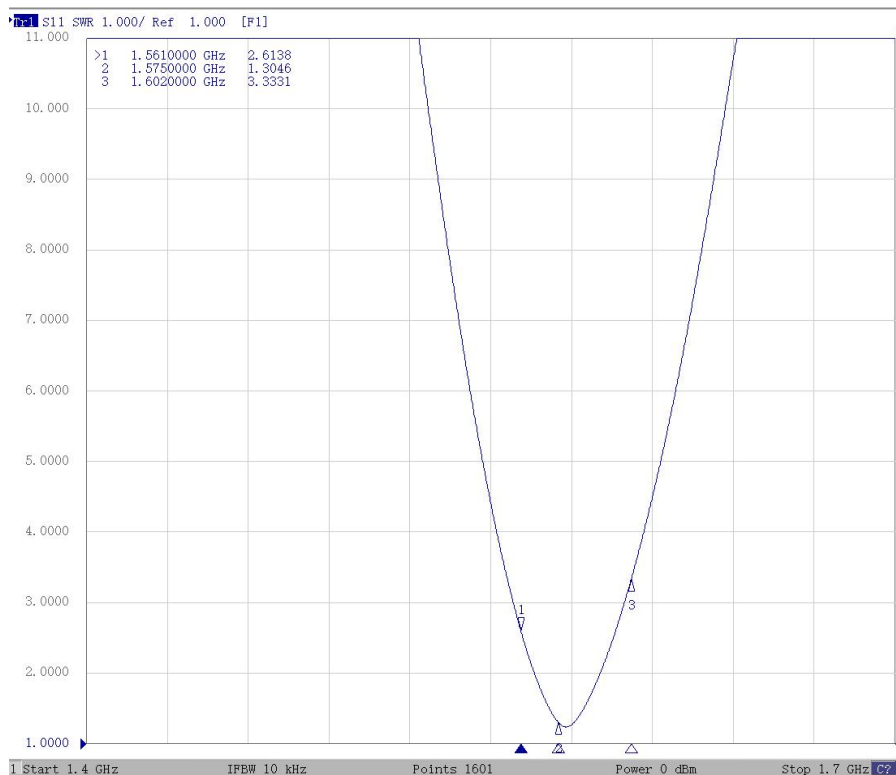
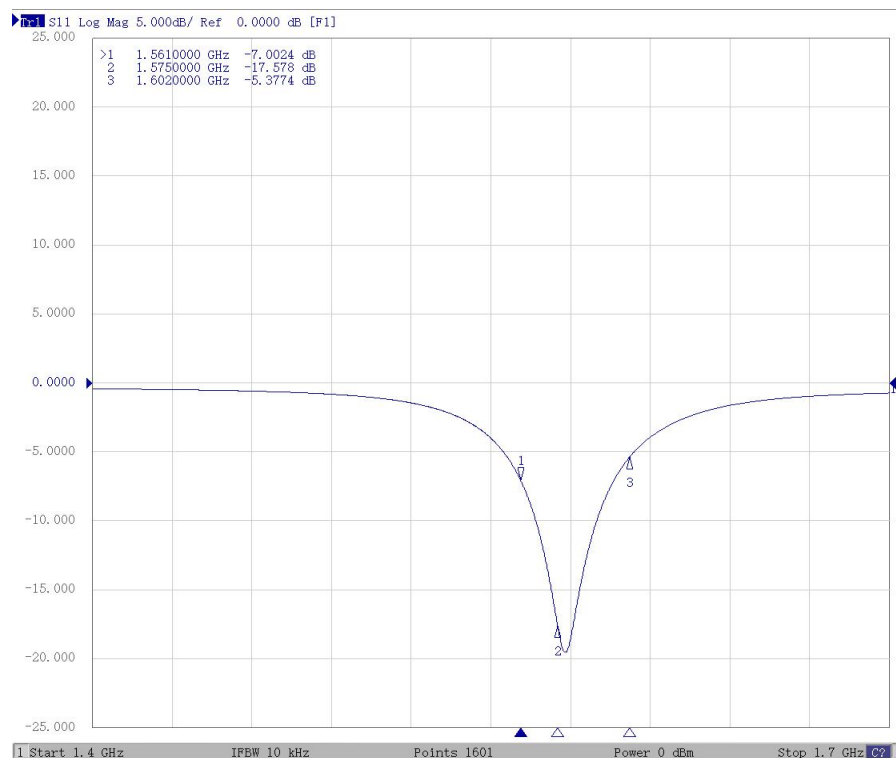


Figure 7. MAN1575C32 Return Loss



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Radiation Pattern & Efficiency & Peak Gain

Figure 8. The Gain pattern is measured in FAR-field chamber

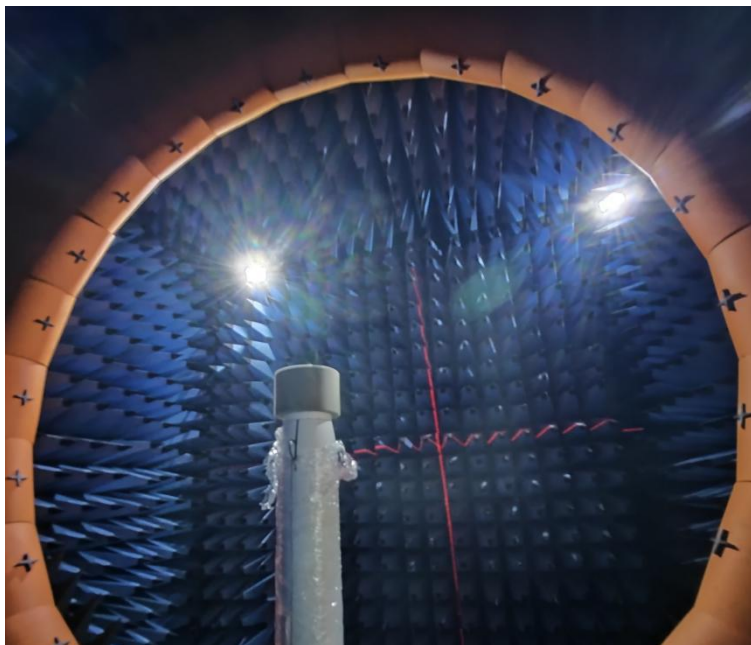


Table 4. MAN1575C32 Total Efficiency&Peak Gain

Item (MHz)	Efficiency (%)	Peak Gain (dBi)
1550	28.31	0.51
1555	31.58	1.10
1560	34.61	1.59
1565	38.03	2.05
1570	41.03	2.41
1575	42.60	2.59
1580	42.62	2.60
1585	41.72	2.53
1590	39.92	2.36
1595	36.28	1.90
1600	30.85	1.13
1605	25.83	0.28
1610	22.22	-0.44

*Antenna performance can also vary across different demo boards and in different environments. It is recommended to consult the relevant technical personnel to confirm the layout before use to ensure optimal performance.

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Figure 9. MAN1575C32 Total Efficiency

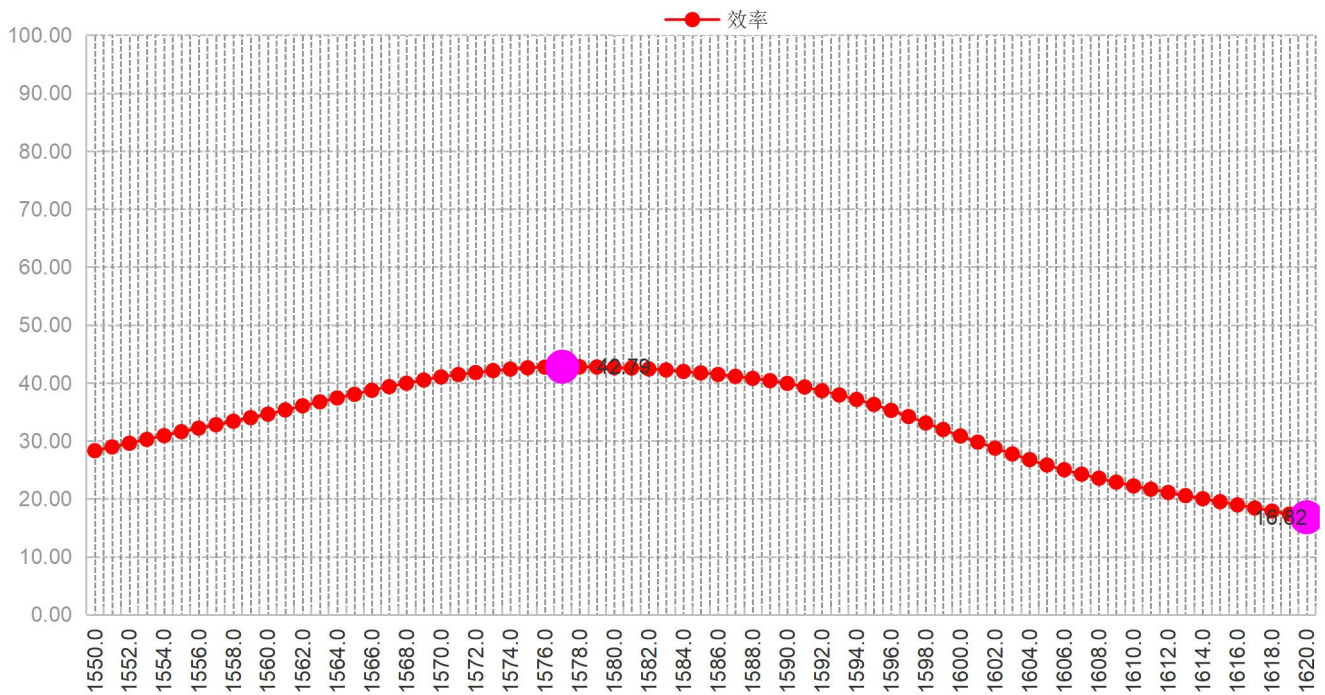
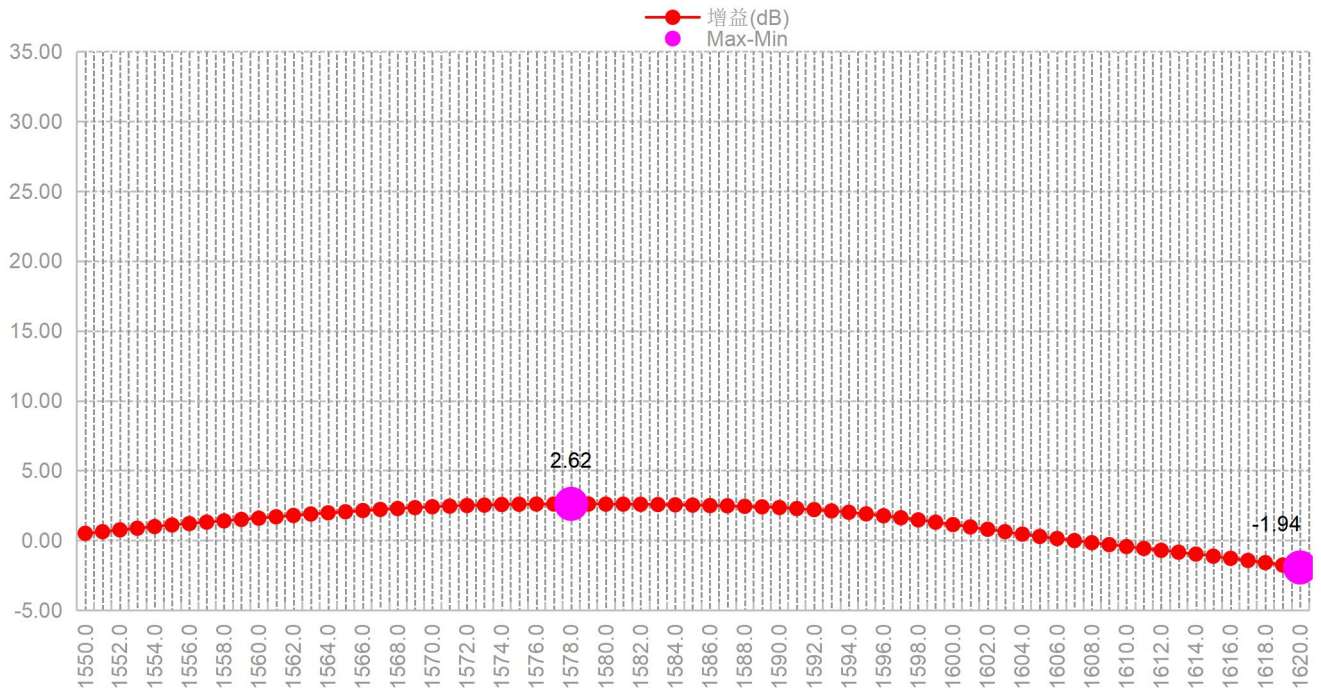


Figure 10. MAN1575C32 Peak Gain



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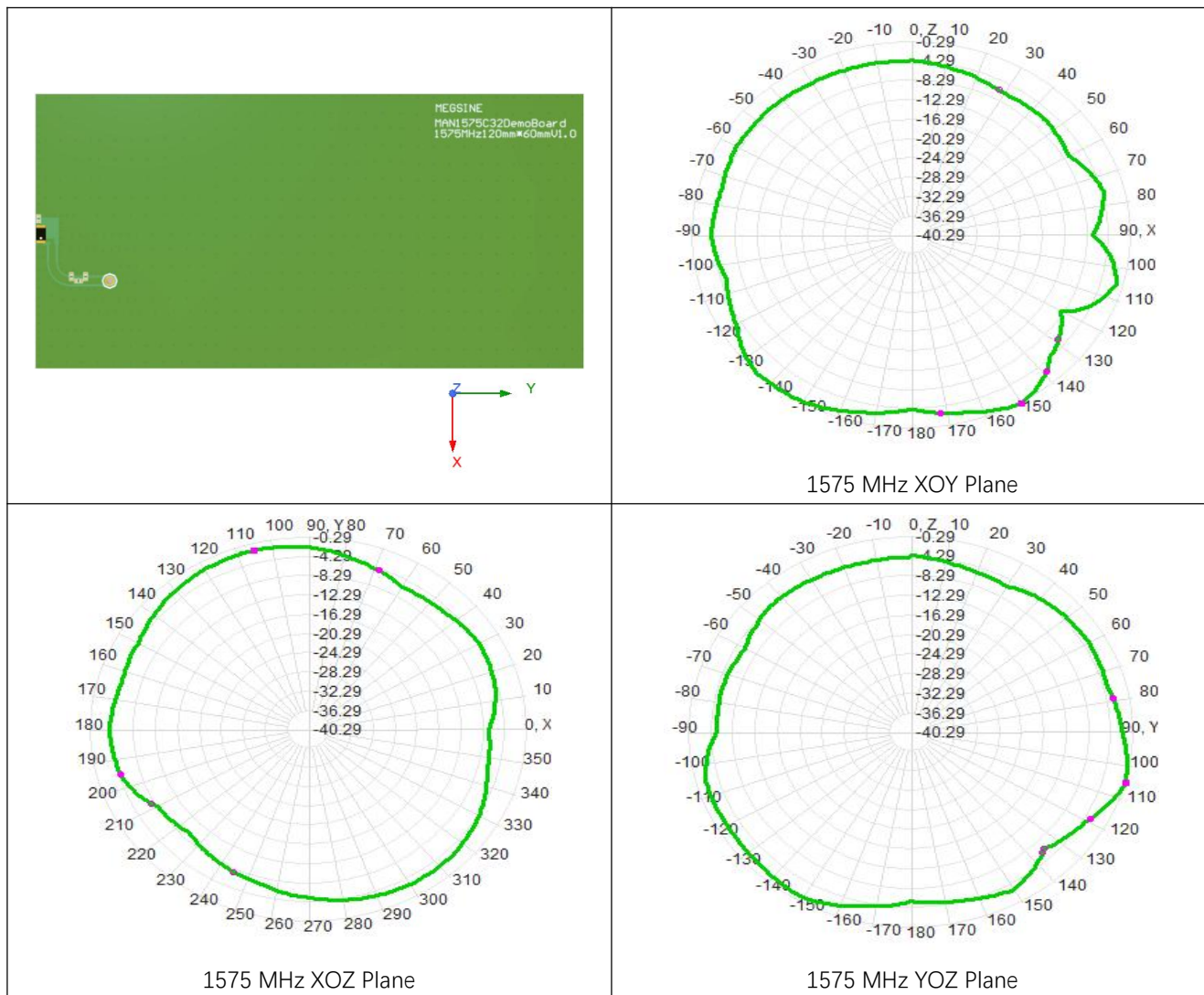
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Figure 11. Radiation Pattern



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Packaging and Ordering Information

Figure 12. Packaging Information

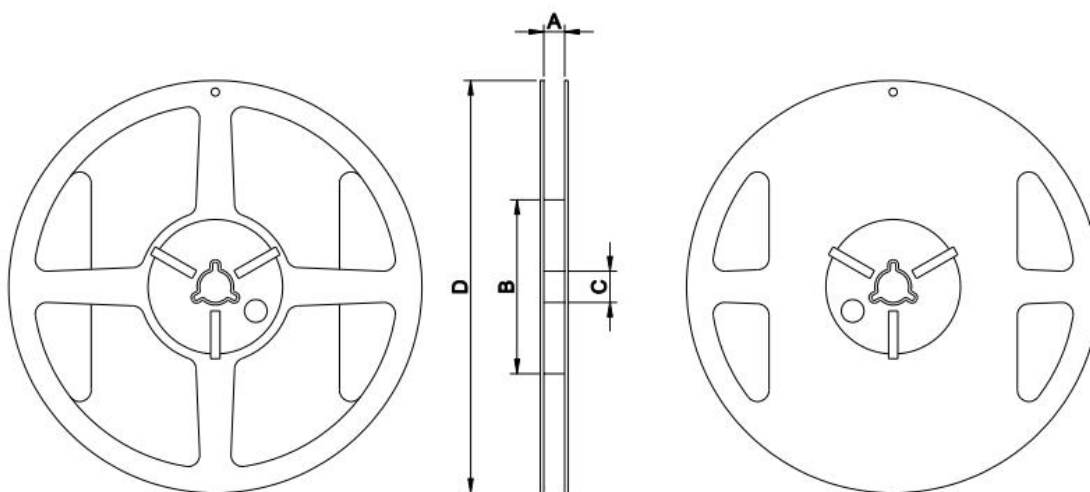
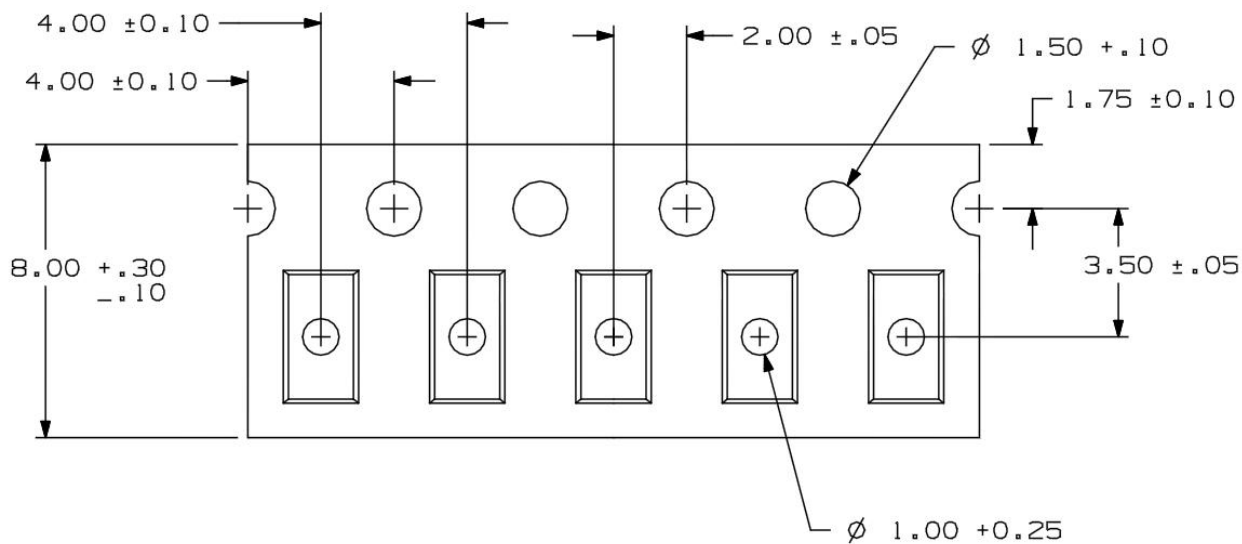


Table 5. Packaging and Shipping

Device	Packaging	Reel	Shipping
MAN1575C32	SMD	7"	3000/Reel

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Revision	Description	Date
Rev0	Preliminary	2026/3/13

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